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Ake Sjoberg

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NOVAK, DRUCE + QUIGG L.L.P. - PERGO

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EXAMINER

MUSSER, BARBARA J

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,255	Applicant(s) SJOBERG, AKE	
	Examiner BARBARA J. MUSSER	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 14 recites the limitation "the press foil" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 7, 8, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Drees et al.(U.S. Publication 2002/0146954A1).

Drees et al. discloses it is known to make a decorative laminate by applying a decorative layer and a protective wear layer to a core material of particleboard or MDF, and then heating and bonding in a laminate press which bonds the layers together.([0004]-[0005]) Since the core material is particleboard or MDF it would inherently have a surface structure since such boards have a texture. Additionally, the

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claim does not restrict the surface structure from being a smooth structure so even if a particleboard could be considered to be smooth, it would still meet the claim limitation.

Regarding claims 7 and 8, Drees et al. discloses the decorative and protective layers can be impregnated with melamine formaldehyde resin.[0008] Both layers are made of cellulose.[0006]

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al.(U.S. Publication 2004/0086678A1).

Chen et al. '678 discloses a method of making a decorative element by providing a core with a textured surface, applying a design layer, applying a protective wear layer made of a thermosetting resin, and curing the combination so that the layers are bonded together.([0014], [0021]-[0022]; [0030]-[0047]) The reference does not disclose pressing the layers together under increased pressure and temperature to bond them together and cure the thermosetting resin. One in the art would understand that a thermosetting resin would be subjected to increased temperature to cure. The reference also discloses applying a texture to the wear layer(Figure 3). The texture is applied to the core layer via a platen press with increased pressure and temperature.[0043] It would have been obvious to one of ordinary skill in the art at the

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time the invention was made to use a platen press with increased pressure and temperature to cure the wear layer while embossing it since the reference discloses using increased pressure and temperature in a press to apply a texture and would in the art would look to the remainder of the reference to determine how that was accomplished and would use the same technique to applied a texture to the wear layer and would cure the wear layer while bonding it to the core in the press since uncured resin would not hold a pattern and pre-cured resin would be difficult to shape and curing at the same time as embossing would reduce the number of steps required. Chen et al. '678 discloses the core can be fiber board or particle board.[0021]

Regarding claim 2, 4-6, 11 13, and 14, while the reference does not disclose these specific methods of applying texture, they appear to be well-known and conventional methods as applicant has not described them in any detail, indicating that those in the art know how to use the devices to perform the desired tasks. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed pressing methods since such appear to be well-known and conventional methods of applying texture as evidenced by applicant's lack of description of them.

Regarding claims 15 and 16, the core layer can be fiber board or particle board.[0021]

8. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. '678 as applied to claim 1 above, and further in view of Chen et al. '009.

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Chen et al. '678 does not disclose the decorative layer or the wear layer being paper, i.e. cellulose impregnated with resin. Chen et al. '009 discloses a flooring material with a core, a decorative layer, and a wear layer, wherein the decorative layer is made of a urea formaldehyde impregnated paper and the wear layer is made of the same thing.(Col. 8, ll.40-54; Col. 9, ll. 5-13) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cellulose paper impregnated with urea formaldehyde for both the decorative layer and the wear layer since such as extremely well-known in the decorative laminate arts as shown for example by Chen et al.'009. While the reference does not explicitly state the paper is cellulose, paper is conventionally made from wood fibers, which are cellulose, and a paper made from plastic would not be capable of being impregnated.

Regarding claims 9 and 10, Chen et al. '678 discloses that aluminum oxide particles with a particle size of 20-200 nanometers can be present in the wear layer, and Chen et al. '009 discloses these particles can be in the paper used as the wear layer.(Col. 9, ll. 5-18)

9. Claims 1, 7-10, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drees et al. in view of Chen '678.

In the event that the surface of the particleboard of Drees et al. cannot be considered a surface structure and that a smooth surface is also not a surface structure, the following rejection applies.

Drees et al. does not disclose embossing a pattern into the particleboard core. Chen et al. '678 discloses it is known in the decorative laminate arts to use a core with

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an embossed surface.([0002];[0022]) It would have been obvious to one of ordinary skill in the art at the time the invention was made to emboss the core of Drees et al. since Chen et al. '678 shows this is a known feature in decorative laminates which would allow the pattern to be in register with the printed design layer.[0020]

Regarding claims 9 and 10, Chen et al. '678 discloses that aluminum oxide particles with a particle size of 20-200 nanometers can be present in the wear layer.[0031] It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the particles of Chen et al. '678 in the wear layer of Drees et al. to provide improved resistance to wear.[0031]

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drees et al. and Chen et al. '678, or Chen et al. '678 as applied to claim 1 above, and further in view of O'Brien et al.(U.S. Patent 6,551,678).

The references cited above do not disclose how the embossing of the core occurs. O'Brien et al. shows it is known to machine a pattern into a substrate.(Col. 10, ll. 20-25) It would have been obvious to one of ordinary skill in the art at the time the invention was made to machine the pattern into the core of Drees et al. and Chen et al. '678, or Chen et al. '678 since O'Brien et al. shows this is a known method of applying a pattern to a substrate.(Col. 10, ll. 20-25)

11. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drees et al. and Chen et al. '678, or Chen et al. '678 as applied to claim 1 above, and further in view of Duvall.(U.S. Patent 2,803,188).

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The references cited above do not disclose how the embossed pattern is applied to the core. Duvall discloses it is known to apply a pattern to a fiberboard core by spraying the core with water and then embossing it between a patterned roller and a counter roller.(Figure; Col. 3, ll. 35-50) It would have been obvious to one of ordinary skill in the art at the time the invention was made to emboss the fiberboard core of Drees et al. and Chen et al. '678 or Chen et al. '678 by spraying the core with water and then embossing it between a patterned roller and a counter roller(Figure; Col. 3, ll. 35-50) since this cause the surface of the board to yield readily to the embossing pressure. Water is considered a solvent.

12. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drees et al. or Drees et al. and Chen et al. '678 as applied to claim 1 above, and further in view of Cannady, Jr. et al.(U.S. Patent 3,948,713).

The references cited above do not disclose the specifics of the bonding of the layers together in the press. Cannady, Jr. et al. discloses a method of making multiple decorative laminates where a pattern is applied to the surface of the wear layer using a metal foil which is cushioned from the surface of the press via a support layer(11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a metal foil with a cushion to apply a pattern to the surface of the decorative laminate since this is a well-known method of applying texture to the surface of a laminate as shown for example by Cannady, Jr. et al.(Figure; Col. 2, ll. 36-Col. 3, ll. 41)

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Regarding claim 13, since the metal foil can be only 0.0003 inches thick, any pattern on it would be considered a micro structure. (Col. 3, ll. 40-41)

Response to Arguments

13. Applicant's arguments filed 5/5/09 have been fully considered but they are not persuasive.

Regarding applicant's argument that Chen et al. '678 is not a laminating process, examiner agrees. However, applicant's claims do not require a laminating process. Applicant's claims require applying multiple layers to the core. This application can be coating as the claims do not require the layers to be performed or that a laminating step occur. A laminate press is not a positive recitation of a laminating step but a description of the device, and an embossing press is the same type of device and is fully capable of laminating layers together.

Regarding applicant's argument that examiner has not provided a reason to the obviousness rejection, Chen et al. discloses applying a texture to the wear layer but does not disclose how this is applied. It also discloses it is known to apply a texture to a core using a press under increased temperature and pressure. One in the art looking to apply texture to the wear layer would look to the reference's own description of how to apply texture, namely using a press under increased temperature and pressure, to determine a method. Since it is impossible to apply a pattern to a liquid, when the pattern was applied the resin would have to be cured in the press, bonding the layers together, since liquid resin cannot hold a pattern and cured resin would be difficult to

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shape and performing the two steps at the same time would reduce the number of steps required, improving efficiency.

Regarding applicant's argument that examiner's statement as to the methods of embossing is self-serving, applicant's description of the methods is self-serving. If the methods are not well-known and conventional as examiner has asserted, then applicant has not adequately described them such that one in the art would know how to perform the steps and applicant is trying to receive a patent for an invention without fully disclosing the steps required to perform the invention. For example, if one in the art does not know what type of solvents to use, then applicant has not adequately describe the invention while conversely, if one in the art would known what types of solvent to use, then clearly this is well-known and conventional in the art. Nonetheless, examiner has now provided references showing that all of the embossing and pressing steps that examiner asserted were well-known and conventional are, in fact, well-known and conventional.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA J. MUSSER whose telephone number is (571)272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BJM

/B. J. M./

Examiner, Art Unit 1791

/Richard Crispino/

Supervisory Patent Examiner, Art Unit 1791